

1 **CLAIMS :**

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1. A method of forming a felt covering for a ball, characterised by the steps of forming a needlefelt comprising an entanglement of fibres produced by needling a fibre batt in a range of angles including a plurality of angles which are non-perpendicular to the surface of the batt, and cutting or otherwise shaping the needlefelt to form a blank adapted at least partially to cover a ball.
2. A method as claimed in claim 1, characterised in that the batt is curved during needling.
3. A method as claimed in claim 2 wherein the batt is moved longitudinally as a step in the needling process, characterised in that the batt is curved in a longitudinal direction while being needled.
4. A needle felt for a ball covering, said needlefelt being characterised in that it comprises an entanglement of fibres formed by the needlefelting of a fibre batt passed through a needlefelting machine having at least one needleboard providing barbed needles to penetrate said batt in a range of angles including a plurality of angles which are non-perpendicular with respect to the surface of the batt, and in that said needlefelt is cut or otherwise shaped to form a blank adapted at least partially to cover a ball.
5. A needlefelt as claimed in claim 4, characterised in that during needling of the batt in the needlefelting machine the batt is curved in the direction of its travel through the needlefelting

- 1 machine.
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- 3 6. A needlefelt as claimed in claim 5, characterised
4 in that the needleboard is correspondingly curved.
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- 6 7. A needlefelt as claimed in claim 4, characterised
7 in that the needlefelting machine comprises two
8 needleboards at respective locations which are
9 mutually displaced along the direction of travel
10 of the batt through the needlefelting machine.
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- 12 8. A needlefelt as claimed in claim 7, characterised
13 in that the two needleboards are respectively
14 disposed to needle the batt from mutually opposite
15 sides of the batt.
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- 17 9. A needlefelt as claimed in claim 8 and wherein the
18 needlefelt incorporates a scrim, characterised in
19 that the first of said two needleboards in the
20 direction of travel of the batt through the
21 needlefelting machine is disposed to needle the
22 layered combination of batt and scrim from the
23 side opposite to the scrim.
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- 25 10. A needlefelt as claimed in claim 3, characterised
26 in that prior to being needled, the batt is
27 subjected to a preliminary consolidation and fibre
28 entanglement in a pre-needling machine.
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- 30 11. A needlefelt as claimed in claim 10, characterised
31 in that while being partially consolidated in the
32 pre-needling machine, the batt is curved in its
33 direction of travel through the pre-needling
34 machine.
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- 36 12. A needlefelt as claimed in claim 4, characterised

1 in the ball is a resilient hollow ball.

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3 13. A needlefelt as claimed in claim 12, characterised
4 in that said ball is a tennis ball.

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6 14. A felt-covered ball, characterised in that the
7 ball-covering felt is a needlefelt comprising an
8 entanglement of fibres formed by the needlefelting
9 of a fibre batt passed through a needlefelting
10 machine having at least one needleboard providing
11 barbed needles to penetrate said web in a range of
12 angles including a plurality of angles which are
13 non-perpendicular with respect to the surface of
14 the batt.

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16 15. A felt-covered ball as claimed in claim 14,
17 characterised in that the ball comprises a
18 resilient hollow core to which the needlefelt is
19 adhered.

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21 16. A felt-covered ball as claimed in claim 15,
22 characterised in that the ball is a tennis ball.

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24 17. A felt-covered ball, characterised in that the
25 ball is covered by a needlefelt produced by the
26 method as claimed in claim 1.

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28 18. A felt-covered ball, characterised in that the
29 ball is covered by a needlefelt as claimed in
30 claim 4.

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32 19. A felt-covered ball as claimed in claim 17 or in
33 claim 18, characterised in that the ball is a
34 tennis ball.

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36 20. A needlefelt as claimed in claim 4, characterised

1 in that prior to being needled, the batt is
2 subjected to a preliminary consolidation and fibre
3 entanglement in a pre-needling machine.
4

5 21. A needlefelt as claimed in claim 20, characterised
6 in that while being partially consolidated in the
7 pre-needling machine, the batt is curved in its
8 direction of travel through the pre-needling
9 machine.
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